

Oral Health Fact Sheet for Medical Professionals

Children with Respiratory Disorders: Asthma and Allergies

Asthma is a chronic respiratory disease associated with airway obstruction, with recurrent attacks of paroxysmal dyspnea, and wheezing due to spasmodic contraction of the bronchi.

(ICD 9 code 493.2)

Allergy is a hypersensitivity to an agent caused by an immunologic response to an initial exposure.

(ICD 9 code 995.3)

Oral Manifestations and Considerations

Oral

- Increased caries risk, enamel defects
- Increased gingivitis and periodontal disease risk; and more calculus
- Higher rates of malocclusion and increased: overjet, overbite, posterior crossbite; high palatal vault
- Oral candidiasis, xerostomia, decreased salivary flow rate and salivary pH

Other Potential Disorders/Concerns

- none

Oral Side Effects of Commonly Prescribed Medications

Medication

SYMPTOM	MEDICATION	SIDE EFFECTS
Breathing difficulties	A. Bronchodilators (B2-agonists)	A. Oral candidiasis, xerostomia, decreased salivary flow rate
	B. Corticosteroids	B. Oral candidiasis, dental caries
	C. Antihistamines	C. Xerostomia
	D. Decongestants	D. Xerostomia

Sedation

- Hydroxyzine and benzodiazepines recommended; avoid narcotics and barbiturates due to their histamine releasing properties → bronchospasm and potentiated allergic response.

Intravenous sedation

- Use extreme caution due to limited control of the airway.

Avoid

- aspirin, other salicylates and NSAIDS (due to allergies). May provoke a severe exacerbation of bronchoconstriction; use acetaminophen.

Parent/Caregiver Support and Guidance

- Prescribe EpiPen for a child with a severe allergy and remind child and parent to take EpiPen to dental visits
- Recommend rinsing with water thoroughly after using inhaler and taking each dose of sugar containing medication. Advise frequent water intake for patients taking xerostomic medication.
- Discourage consumption of cariogenic foods and beverages.
- Prescribe sugar-free medications, if available.
- Recommend preventive measures such as topical fluoride and sealants. Support the family in following dental care instructions.
- Advise the use of fluoridated toothpaste twice daily.
- Instruct caregiver on appropriate protocol following dental trauma (locate/preserve missing tooth and put in cold milk; seek immediate professional care).
- Review safety issues appropriate to the age of the child, such as mouth guards to prevent oral-facial trauma.
- Discuss habits that may harm the child's teeth, such as propping baby bottles, putting child to bed with bottle.
- Refer to dentist any oral developmental abnormalities.

Additional information: [Special Needs Fact Sheets for Providers and Caregivers](#)

References

- Steinbacher, DM., Glick, M. (2001) The dental patient with asthma. An update and oral health considerations. *Journal of American Dental Association*, 132: 1229-1239.
- Ersin, NK., Gulen, F., Erondat, N., Cogulu, D., Demir, E., Tanac, R., Aydemir, S. (2006) Oral and dental manifestations of young asthmatics related to medication, severity and duration of condition. *Pediatrics International*, 48: 549-554.
- Faria, VCM., de Oliveira, MA., Santos, LA., Santoro, IL., Fernandes, ALG. (2006) The effects of asthma on dental and facial deformities. *Journal of Asthma*, 43: 307-309.

Additional Resources

- [NIH Institute for Asthma and Allergies](#)
- [Special Care: an Oral Health Professionals Guide to Serving Young Children with Special Health Care Needs](#)
- [Bright Futures Oral Health Pocket Guide](#)
- [American Academy of Pediatrics Oral Health Initiative](#)
- [American Academy of Pediatric Dentistry: 2011–2012 Definitions, Oral Health Policies and Clinical Guidelines](#)
- [MCH Resource Center](#)
- [ASTDD-Special Needs](#)
- [Block Oral Disease, MA](#)
- [NOHIC-NIDCR publications](#)